# BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

| U.S. GEOTHERMAL, INC. AN IDAHO             | )                           |
|--|-----------------------------|
| CORPORATION,                               | ) CASE NO. IPC-E-04-8       |
| Complainant,                               | )<br>)<br>)                 |
| vs.  | )                           |
| IDAHO POWER COMPANY, AN IDAHO CORPORATION, | )<br>)<br>)                 |
| Respondent.                                | )                           |
| BOB LEWANDOWSKI and MARK<br>SCHROEDER,     |                             |
| Complainants,                              | )                           |
| vs.  | )<br>)<br>) ORDER NO. 29632 |
| IDAHO POWER COMPANY, AN IDAHO CORPORATION, | )                           |
| Respondent.                                | )                           |

Two complaint proceedings are pending before the Commission against Idaho Power Company, Case Nos. IPC-E-04-8 and IPC-E-04-10. The complainants are small power producers and Qualifying Facilities (QFs) under the Public Utility Regulatory Policies Act of 1978 (PURPA) and the implementing regulations of the Federal Energy Regulatory Commission (FERC). The respondent, Idaho Power, an electric utility, is required pursuant to PURPA and the implementing rules and regulations of FERC and this Commission to purchase power from eligible QFs.

#### Case No. IPC-E-04-8 – U.S. Geothermal

On March 25, 2004, U.S. Geothermal, Inc. in Case No. IPC-E-04-8 filed a complaint against Idaho Power Company (Idaho Power; Company) alleging that Idaho Power was proposing PURPA contract terms that were unjust, unreasonable and unlawful. U.S. Geothermal is the owner and developer of the Raft River Geothermal Power Plant (Raft River Facility), a

proposed 15 MW air-cooled, closed cycle geothermal electric generating plant to be constructed in Cassia County, Idaho. U.S. Geothermal proposes to develop a geothermal energy resource underlying nearly six square miles in the Raft River Valley. The Raft River resource area may be capable of producing up to 15.6 MW of electrical power from each square mile. Tr. at 13, 14. The Raft River Facility is a Qualifying Facility as that term is used and defined in the Public Utility Regulatory Policies Act of 1978 (PURPA) and 18 C.F.R. § 292.207.

U.S. Geothermal alleges Idaho Power's contract demands are unjust, unreasonable and contrary to law because:

- 1. Idaho Power refuses to purchase an annual <u>average</u> of 10 MW of power from U.S. Geothermal at the Commission-approved non-levelized posted rates. Instead, Idaho Power insists that it will only purchase a <u>maximum</u> of 10 MW in any given hour at the posted rates. U.S. Geothermal contends that there is no basis in law or in fact for such a limitation.
- 2. Idaho Power insists on extreme financial penalties if U.S. Geothermal's total output in any month falls below 90%, or above 110%, of its projected output. U.S. Geothermal contends that there is no basis in law or in fact for such penalties.
- 3. Idaho Power insists that it must have the ability to terminate its contractual obligation to purchase U.S. Geothermal's power if (1) Idaho law is modified to permit any other party to sell electricity at retail in Idaho Power's service territory and (2) such change in law results in Idaho Power being unable to recover in its retail revenue requirement all costs attributable to the purchase agreement with U.S. Geothermal. U.S. Geothermal contends that there is no basis in law or in fact for Idaho Power's position, and that such a provision would effectively nullify this Commission's rules by making it extremely costly, if not impossible, to finance PURPA projects.

On April 19, 2004, Idaho Power filed its Answer contending that U.S. Geothermal had not stated a claim for relief which could be granted.

#### Case No. IPC-E-04-10 – Mssrs. Lewandowski and Schroeder

On April 28, 2004, Bob Lewandowski and Mark Schroeder (the wind QFs) filed a complaint against Idaho Power Company in Case No. IPC-E-04-10. Both Mr. Lewandowski and Mr. Schroeder are in the process of developing wind power projects in Idaho that will be Qualifying Facilities pursuant to PURPA. Mr. Lewandowski's wind project, for the current phase, will have a total capacity of 325 kW and will consist of 3 refurbished 108 kW micron

turbines. Tr. at 258. Mr. Schroeder's wind project will consist of eleven 900 kW NEG-micron turbines. Tr. at 258.

Mr. Lewandowski and Mr. Schroeder complain that:

- 1. Idaho Power is insisting on contract provisions that obviate the requirement that a purchase of all of the output from these projects be at full avoided cost rates when said output is less than 90% or more than 110% of projected output.
- 2. Idaho Power is also insisting on a contract provision called "shortfall energy" which would actually require the developer to pay Idaho Power for electricity not produced by the project with no cap or ceiling on the price.
- 3. By later amendment the wind QFs also incorporated a third count regarding Idaho Power's proposal to terminate the agreement should retail deregulation be implemented in Idaho and the utility as a result be unable to recover its contract costs. They contend there is no basis in law or fact for this position and that it would effectively nullify the Commission's rules by making it extremely costly, if not impossible, to finance PURPA projects.

On May 17, 2004, Idaho Power filed its Answer contending that Complainants had not stated a claim for relief which could be granted.

# **Appearances**

A technical hearing in Case Nos. IPC-E-04-8 and IPC-E-04-10 was held in Boise, Idaho on September 2 (3), 2004. The following parties appeared by and through their respective counsel of record:

Idaho Power Company:

Barton L. Kline, Esq.

U.S. Geothermal, Inc.:

Conley E. Ward, Esq.

Bob Lewandowski

Mark Schroeder:

Peter J. Richardson, Esq.

Avista Corporation:

R. Blair Strong, Esq.

PacifiCorp:

James R. Fell, Esq.

Commission Staff:

Scott D. Woodbury, Esq.

We have reviewed and considered the record in Case Nos. IPC-E-04-8 and IPC-E-04-10 including the transcript of technical proceedings; filed public comments; and the post-

hearing briefs of U.S. Geothermal, Bob Lewandowski and Mark Schroeder, Idaho Power and Avista.

In this proceeding the complainants object to contract provisions that Idaho Power insists be included in a Firm Energy Sales Agreement (FESA; Agreement). As reflected in our initial notice in this case and as framed by the complainants, we find that there are only three distinct issues or contract provisions presented for Commission consideration:

#### 1. Regulatory Out Clause

If existing Idaho law is modified to allow persons or entities other than Idaho Power to sell electric capacity or energy at retail in Idaho Power's exclusive service territory, and such change in law results in Idaho Power being unable to fully recover all costs associated with the QF Firm Energy Sales Agreement, Idaho Power may terminate the Agreement on 60 days prior written notice. Tr. at 178.

Should Idaho Power be allowed to include a contract clause that allows the Company to unilaterally terminate PURPA contracts if certain regulatory actions occur in the State of Idaho? Tr. at 193.

### 2. 10 MW Definition – Eligibility for Posted (Published) Rates

What is the definition of the 10 MW size limit for entitlement to the Commission's published avoided cost rates? Tr. at 191, 192.

#### 3. 90-110% Performance Band

Should Idaho Power be allowed to include contractual provisions that impose financial penalties or liquidated damages if a PURPA generator's energy deliveries vary by more than plus or minus 10% from its forecasted performance? Tr. at 192.

A fourth issue raised by U.S. Geothermal at hearing is related to the 10 MW threshold and 90-110 band issues. The fourth issue is one of grandfathering. Can a project greater than 10 MW generate more than the contract firm energy amounts and sell that excess either to Idaho Power at market-based rates or to a third party and nevertheless remain eligible for the published rates for the first 10 MW of generation, consistent with the terms and conditions of the PURPA contracts approved by the Commission for Tiber Montana (Order No. 29232) and Renewable Energy (Order No. 29487)? U.S. Geothermal contends that it is entitled to grandfathering because of extensive negotiations conducted with Idaho Power based on the Company's contracting guidelines and previous Commission contract approvals. Tr. at 193.

Other issues raised by the parties and intervenors are beyond the scope of this complaint proceeding and will not be addressed.

### 1. Regulatory Out

Idaho Power's proposed regulatory out provision would allow the Company to terminate the power sales agreement should retail electric competition within its service area result in its inability to recover the costs associated with the QF contract. Tr. at 27. Idaho Power in support of inclusion of such contract language offers Company Exhibit 204, which is an excerpt from an Idaho Attorney General Report to the Idaho Legislature wherein the Attorney General cites a position advanced that a change in the regulatory environment is simply a business risk and does not constitute confiscation. Tr. at 382. In the situation where legislation or Commission action does not provide for recovery of stranded PURPA expenses, Idaho Power contends that it needs to be able to assert that the government has confiscated its property. Tr. at 382. Until the Commission issues an Order either approving or disapproving the regulatory out language the Company has requested, Idaho Power witness Gale states that he is advised by his legal counsel that there is some remaining risk that the Company will be vulnerable to future assertions that it voluntarily waived its right to claim confiscation of its property. Tr. at 384.

Commission Staff does not support inclusion of a regulatory out clause. Tr. at 578. Staff contends that such a clause is unnecessary to protect the Company's economic interest and that such a clause is prohibited by PURPA and FERC regulations. Tr. at 605. Staff notes that the utility has no discretion under PURPA whether or not to purchase QF power. The Commission requires the Company to enter into contracts and pursuant to other contract provisions approves the payments as prudently incurred expenses for ratemaking purposes. Once a QF contract and price are approved by the Commission, Staff contends that the QF costs pursuant to that price are no longer at issue as to prudency. Tr. at 606. The proposed regulatory out clause, Staff contends, gives the Commission continuing jurisdiction over the avoided cost rate and subjects the QF to the same "utility type regulation" precluded by PURPA Section 210(e); implementing FERC regulations, 18 C.F.R. Section 292.602(c)(1); by federal courts; by state Supreme Courts and by the Idaho Supreme Court. Tr. at 607.

Staff contends further that the QF is also entitled to certainty, a certainty that it will receive a fixed price and stream of revenue through the life of the contract, without a re-opener clause, without rate revision, and assuming compliance with contract terms and conditions,

without termination. Staff notes that under PURPA and FERC regulations the QF is entitled to a fixed rate contract for sale of power over a fixed period of time. The QF, Staff contends, should not be denied the certainty of an arrangement and the benefits of its commitment as a result of changed circumstances. Tr. at 606.

PacifiCorp supports Idaho Power's position that utilities need to act prudently to mitigate their potential exposure if deregulation results in unrecovered stranded costs. Tr. at 496.

Avista states that it does not propose to include stranded cost provisions in its PURPA contracts. Tr. at 544. In the event of retail deregulation, Avista believes that the Commission has the authority to approve charges for end-use retail customers that would provide an opportunity for recovery of cost obligations resulting from PURPA contracts. If deregulation does occur at the retail level, the Company contends that it will be important that such legislation address the stranded cost issues, and/or that the Commission retain all necessary authority to address recovery of any PURPA-related stranded costs. Tr. at 544.

U.S. Geothermal witness Kunz contends that inclusion of a regulatory out clause creates unnecessary uncertainty. It is also not needed, he states, because QF contracts must be presented for Commission approval and Commission Orders include a finding that payments made pursuant to the agreement shall be allowed as prudently incurred expenses for ratemaking purposes. Tr. at 27; 178-179. Having received Commission approval, U.S. Geothermal contends that it is unfair to the QF, its investors, and its lenders to provide for the termination of the agreement as a result of actions and negotiations that would be conducted outside the scope of the contract. Tr. at 179. Any negotiation, settlement and balancing of assets and liabilities as a utility moves to deregulation, U.S. Geothermal witness Runyan contends, would be a comprehensive solution that would undoubtedly include many offsetting compromises and valuations. Tr. at 180; 264.

Don Reading, witness for the wind QFs, contends that this seemingly innocuous clause is fraught with ambiguity, danger, uncertainty and inaccuracies. As an example, he states, there is no such thing as "exclusive service territories." Secondly, he states the phrase "fully recover all costs associated with this Agreement" is very problematic. In a deregulation scheme IOU's, such as Idaho Power, would likely be expected to net out their stranded costs from their stranded benefits resulting in an overall settlement of who is owed what. Thirdly, he queries

who would make the call relative to whether or not Idaho Power had recovered all its costs. Tr. at 273-275.

# **Commission Findings**

Idaho Power is required to purchase energy and capacity from eligible QFs pursuant to PURPA and FERC rules and regulations. The Company has never regarded purchases from OFs as voluntary. The Company includes in its Firm Energy Sales Agreements a provision conditioning the purchase on Commission acknowledgement that utility payments to the QF will be treated as prudently incurred expenses for ratemaking purposes. This Commission is the state regulatory authority that by Order requires QF purchases and establishes the avoided cost rate. This Commission has always provided Idaho Power with the assurance it requested. We are now being asked to allow the Company to include a regulatory out clause in QF contracts. While the rights and obligations of the contracting parties should be delineated and identified risks should be mitigated, the Company should not lose sight of the underlying nature of the transaction and the advantages to the utility and its customers of securing a greater diversity in its resource base by acquiring renewable resources. Idaho Power has an obligation to purchase QF power. A QF, willing to enter into an enforceable obligation, has a right to a contract for an established term. Pursuant to Commission policy, utilities are required to submit QF contracts for Commission review and approval. We will not permit Idaho Power to terminate QF contracts for reasons other than the default of the QF. We will not allow the Company to require a QF to accept a regulatory out clause as a condition of contract.

#### 2. 10 MW Threshold

Idaho Power proposes a metered energy test as a method of determining published rate eligibility. Using actual metered generation, it contends, is the preferred method to determine if the capacity of the QF exceeds the 10 MW capacity limit. If a QF meter reads greater than 10,000 kWh per hour, then the QF is greater than 10 MW and not entitled to published avoided cost rates. Tr. at 342-343. A technology-by-technology analysis, Idaho Power contends, would inject an unreasonable level of complexity into the process. Tr. at 370.

Idaho Power contends that the 10 MW threshold limit question has arisen because the Commission has issued no definitive ruling as to the test to be applied to determine the capacity of a QF and its entitlement to the published avoided cost rates. Tr. at 338. The Company's practice has been ad hoc. In most instances, the Company states that it has used

nameplate capacity as the test. Tr. at 340. This practice led to a succession of 9.9 MW QF projects. Administratively the Company included a provision in those 9.9 MW QF contracts that put the developers on notice that if their projects generated more than 10,000 kWh per hour, Idaho Power could declare that they were not entitled to the published rates. Tr. at 340. The Commission's recent Order No. 29487 in the Renewable Energy case, Idaho Power states, has increased the Company's desire for greater certainty in this area. Tr. at 342. In Renewable Energy the Commission stated that Idaho Power's failure to follow Commission-approved avoided cost methodology for calculating QF rates was both unacceptable and inexcusable. For QFs larger than 10 MW, purchases, the Commission stated, are to be priced pursuant to the approved IRP-based methodology. Published rates are for QFs smaller than 10 MW. Case No. IPC-E-04-5, Order No. 29487 at 10 issued May 4, 2004.

Regarding wind, Idaho Power states that in preparing its 2004 IRP the Company determined that the usual maximum capacity factor for large wind resources is approximately 35%. Tr. at 345-346. Wind, it states, is an intermittent resource. As such, wind presents significant problems for utility resource and system planners. It can literally fluctuate between zero and the machine's maximum capacity on a minute-to-minute basis. Tr. at 346. A wind resource, Idaho Power states, is a good example of a non-firm "if, as, and when available" resource. Tr. at 346. Wind resources, unless they are firmed by other dispatchable resources, the Company contends, simply cannot be described as providing firm energy. Tr. at 346. On a long run average basis, wind energy, the Company concedes, may be as predictable as hydro generation. However, hydro generation, it states, is not subject to the instantaneous increases and decreases that wind generation is subject to. Tr. at 346-347. Large intermittent resources, the Company contends, also place significant demands on utility transmission and distribution resources. Tr. at 347.

Idaho Power states that the avoided cost for non-firm energy is not the published rate for firm energy. The appropriate full avoided cost for wind resources, the Company contends, is a non-firm rate under Schedule 86. Tr. at 347. The Firm Energy Sales Agreement provided by the Company, it contends, provides wind with the opportunity to commit a portion of a QF project's total monthly energy generation as firm. If the amount they specify is actually provided, firm prices will be paid. Tr. at 348. Additional energy delivered up to 10,000 kWh/hour would be purchased at non-firm prices. Tr. at 348.

The U.S. Geothermal Raft River project will be a binary power plant using geothermal heated water. Hot geothermal water is extracted from the earth and once the necessary heat has been extracted for the binary cycle use and the water has been cooled, it is injected back into the geothermal reservoir. The process will rely on air-cooling to achieve the electrical output. Air-cooling is subject to seasonal variations, with the cold of winter supplying very high efficiencies in cooling; and the heat of summer producing the opposite effect. Due to the seasonal ambient temperatures, the plant output will swing from 8 MW in the peak of summer to just over 12 MW in the dead of winter. The overall annual plant output however will average 10 MW. U.S. Geothermal feels strongly that the Raft River plant should qualify as a 10 MW QF and be measured on its performance on an annual basis. If it is limited to a 10 MW turbine, U.S. Geothermal contends that Raft River could never deliver anything close to an average of 10 MW per year. This is because of the seasonal variations in ambient temperature and because Raft River will have a relative large "in-house" or parasitic load (the draw of electrical power for pumps and cooling fans). Tr. at 22-24, 72, 75. U.S. Geothermal witness Kunz recommends that the definition of the cap for published rates be based on 10 MW annual average energy production, and not 10,000 kWh in any single hour. Tr. at 25.

The maximum plant output of Raft River (the expected output of the plant in the middle of winter) is approximately 12.7 MW. Tr. at 94. U.S. Geothermal notes that it is not asking Idaho Power to purchase "excess energy" above the 10 aMW. Tr. at 102. U.S. Geothermal requests an "engineering definition" of a 10 MW geothermal power plant: i.e., (1) the ability to deliver no more than 10 MW as an annual average; and (2) a recognition that at the average design condition the power plant will deliver no more than 10 MW. At temperatures above the design point, the generation will be lower. At temperatures below the design point, the output will be higher. Tr. at 106.

U.S. Geothermal's last draft of a contract proposes that the "maximum capacity amount" be defined as 12.7 MW in any hour. In addition, in Article VI of the Agreement, U.S. Geothermal introduces the concept of "maximum monthly energy amounts." This concept limits the maximum energy deliveries in any month to a specified amount. The total of all 12 monthly (maximum monthly energy) amounts is 87,661 MWh, or an average output of 10 MW (multiplied by 8766 hours in an average year). Tr. at 164-165. Article 14.2 of the U.S. Geothermal contract states that "sellers failure to limit deliveries by the transmitting entity to the

maximum capacity amount will be a material breach of this agreement." Tr. at 199. An alternative suggested by U.S. Geothermal is that contracts could simply expand the definition of the "maximum capacity amount" to include an appropriate capacity amount for each month, determined by utilizing accepted engineering principles. That provision, along with the maximum monthly energy amounts would eliminate any risk of abuse. Tr. at 201.

U.S. Geothermal contends that generator nameplate is not relevant to the contracted amount, and should not be used to determine the size of the QF. During the extreme heat of summer months, the generator nameplate could be as much as 17 MW, in order to supply 10 MW of annual average power to the utility. Tr. at 75. Moreover, U.S. Geothermal witness Kitz contends that there is no actual physical power plant "nameplate," only a power plant design rating. The rating for thermal power plants, he contends, is the power plant output established at a very specific set of environmental conditions, including temperature, elevation, relative humidity, etc. However, those design conditions, he states, are actually met only a very small percentage of the time. The rest of the time, the output of the power plant is higher or lower, depending on the particular environmental conditions at that time. Tr. at 77-78.

The variation of plant output, U.S. Geothermal contends, would be true also for the Idaho "surrogate avoided resource" (SAR). Tr. at 79-81. Kitz concludes that it is therefore reasonable to assume that the Commission expected, and was willing to see, published rates offered to a nominal 10 MW power plant. A nominal 10 MW power plant would average 10 MW over the year, but would produce less than that in the summer and more than that in the winter. Tr. at 83. Defining a 10 MW PURPA power plant as limited to the ability to produce no more than 10 MW in any hour, Kitz contends, would effectively limit any thermal power plant to a rating of 8.5 MW or less. Tr. at 83. Such a limitation, he contends, would compromise economies of scale and economic viability. Tr. at 84-85.

PacifiCorp for published rate eligibility recommends (1) a capacity definition of 10 MW in any hour (Idaho Power's metered energy test); (2) an "initial capacity determination" to verify that a QF at any time, when operated consistent with the manufacturer's specifications, prudent utility practices and actual operating conditions, has a maximum capacity of 10 MW or less and is eligible for tariff prices; and (3) a contract provision limiting payment to not more than 10 MW in any hour. Tr. at 496; 498. The 10 MW ceiling, PacifiCorp contends, should be determined to be a measure of maximum capacity and not of average energy delivery. Tr. at

497. By definition, PacifiCorp states, a "megawatt" is a measure of capacity, not average energy. Tr. at 498. PacifiCorp's position is that the 10 MW capacity ceiling should apply to the actual capacity of the QF, not just the hourly delivery limitation. Tr. at 500. An initial capacity determination, it states, is necessary to preserve the integrity of the 10 MW capacity ceiling. Tr. at 501. Referencing PURPA and FERC regulations at 18 C.F.R. Section 292.304(c)(2) which states "there may be put into effect standard tariff prices for purchases from QFs with a design capacity of more than 100 kW," PacifiCorp notes that FERC's "design capacity" standard focuses on how the QF will be designed and operated. Tr. at 498; 500.

Avista supports a 10 MW threshold that determines eligibility based on generator nameplate rating or dependable capacity. Tr. at 537. Commission Staff contends that nameplate capacity is not a reasonable way to define the 10 MW threshold. Tr. at 590. Idaho Power believes that a nameplate capacity rating is not very precise. The Company contends, however, that nameplate rating could be used if the Commission would specify a particular methodology to be used to measure nameplate rating. Tr. at 344.

Commission Staff states that it has always interpreted the 10 MW threshold as a capacity limit, not an energy limit. If 10 MW had been viewed as an energy limit, Staff would have been careful to always specify it as "10 average megawatts" or 10 aMW. Avista concurs and believes that if eligibility for published avoided cost rates were to be based on average energy, it could lead to unintended consequences (Tr. at 538). Staff supports the Company's metered energy test, not to exceed 10,000 kWh/hour definition. Tr. at 578; 584. Contrary to U.S. Geothermal witness Kitz's testimony, Staff contends that in the regulatory arena plants are always generally described by the rated capacities, not by their average annual capacities. Tr. at 587. For example, Staff states that the Idaho Power Danskin project (a single cycle natural gas combustion turbine) is normally referred to as a 90 MW plant because it has the capability to generate 90 MW under normal conditions. If it were to be described instead based on its average annual generation, it would be described as a 5 or 10 MW plant due to its limited hours of operation. Tr. at 587.

Staff notes that if a threshold of 10 aMW measured over the course of the year were used, it could not be verified except on an annual basis. If the QF were found to have exceeded a 10 aMW threshold at the end of a year, Staff contends that it would present administrative and accounting difficulties to adjust for payments already made to the QF. Tr. at 588. A test based

on hourly metering, Staff contends, would instead be able to provide almost immediate verification. Tr. at 588.

It is Staff's belief that a wind project, unless it can meet specific performance criteria to distinguish it as firm, is not entitled to Idaho's published rates. Tr. at 628.

### **Commission Findings**

The Commission is asked to define a 10 MW threshold for posted rate eligibility. This issue has come to the fore because of the operational characteristics of geothermal and wind resources.

Idaho Power recommends a metered energy test – if metered energy is greater than 10,000/kWh per hour then a QF is greater than 10 MW and not eligible for posted rates. Staff supports this definition, as does PacifiCorp. While such a test has the attractiveness of simplicity and ease of verification, it also has limitations when applied to some eligible resources. Idaho Power prefers a bright line test contending that a technology-by-technology analysis would be too complex to administer.

Additional standards have also been proposed. Avista recommends an eligibility standard based on generator nameplate rating or dependable capacity. U.S. Geothermal recommends that the 10 MW be determined as the project's capability to generate at 10 MW under normal or average design conditions, a standard based on annual average energy (10 aMW). PacifiCorp in addition to the metered energy test would require an "initial capacity determination" to determine tariff rate eligibility.

The Commission is also asked to make a distinction regarding eligibility between firm and non-firm resources. In Order No. 15746 we equated firm with pursuant to a "legally enforceable obligation"; non-firm we equated to "as available." In doing so we referenced Section 292.304(d) of the FERC rules. Exh. 59, pp. 13-14. Idaho Power and Staff now suggest that the term "firm" connotes a level of energy predictability as to amount and time of delivery – if a QF possesses that capability it is entitled to published rates; if it does not, it is somehow relegated to non-firm or market based tariff rates. To adopt the Company's definitional proposal would disqualify intermittent, low capacity resources (wind and solar) that might be unable to predict amount and timing of generation from posted rate eligibility.

It was suggested in U.S. Geothermal's post-hearing brief that a QF was being required to exhibit the roughly equivalent operational availability of the SAR or a single selected

utility resource, in Idaho Power's case the selected resource being a wholesale market purchase. The complainants contend that a utility's resource portfolio is diversified and includes resources with different risk characteristics and varying degrees of operational availability. It is improper, they contend, to chose a utility resource and require QFs to model its performance within a band of operation in order to receive full avoided cost. This Commission has adopted an SAR method to establish avoided costs, not a method based on a resource portfolio of either existing or proposed resources. Unless and until that method is changed, it shall remain the standard for determining avoided cost rates. QFs have the incentive to provide the Company with as much energy as they are capable of generating. While dispatchability may be of value to the Company with respect to its own resources, it is not a feature of QF contracts. They should be recognized for the type of resources they are and valued and integrated accordingly.

The Commission notes that Idaho Power QF contracts have always contained initial estimates of monthly energy production. The Company admits it has never attempted to revise the initial estimate in the contracts to comport with actual production but it nevertheless does use historical generation for planning purposes. The Company has also never required QFs to deliver their contract estimates. The Commission finds that the firm/non-firm issue raised is really one of predictability, not capacity factor. The Company has accepted monthly predictability as reasonably firm. Delivering contract estimates will always provide the utility with capacity. This is as true for a wind resource as it is for a geothermal resource. If a QF can provide monthly contract estimates, it is entitled to a published rate contract.

It is the Commission's belief that a legally enforceable obligation translates into reciprocal contractual obligations for both parties, a quid pro quo. It is not just a lock-in of avoided cost rates but is also an obligation to deliver. We are asked by the wind QFs to accept that there is no reciprocal QF requirement other than committing to provide the utility with any energy actually produced, no obligation to deliver estimated amounts. The question posed by Idaho Power is whether we should continue with a method that was reasonably well suited for the usual types of QFs of the past or determine that a different approach is now in the public interest for a new generation of QFs. The changes in the electric industry and the constraints, challenges and opportunities now faced by Idaho Power indicate to this Commission that the QF resource portfolio of the Company must be managed or administered more efficiently.

The Commission finds that the parties have persuasively established the unreasonableness of using a simple 10 MW nameplate capacity rating to determine posted rate eligibility. For QF projects with parasitic load requirements such as U.S. Geothermal, such a standard would be inequitable. It is also unreasonable for low capacity factor resources such as wind. The Commission finds that the Company proposed metered energy test, a 10,000 kWh per hour limit, is operationally too restrictive. The Commission believes that QF generation should not be measured on an hourly, daily or weekly basis, but rather on a monthly basis. It is on a monthly basis that QFs are paid. We find that the 10 MW threshold limit, however, must have some import, some significance if eligibility is to mean anything. The Commission finds it reasonable to define firmness as predictability on a monthly basis. By way of eligibility criteria, we find it reasonable for the utility to make an initial capacity determination and require that the QF demonstrate that under normal or average design conditions the project will generate at no more than 10 aMW in any given month. To provide further definition and sideboards, we also find it reasonable to cap the maximum monthly generation that qualifies for published rates at the total number of hours in the month multiplied by 10 MW.

### 3. 90%/110% Performance Band

During 2003, Idaho Power purchased about 75 aMW of QF generation, yet the nameplate capacity of the QF facilities under contract is 182 MW. Tr. at 314. Idaho Power is requesting that the QF quantify the amount of net energy, in kilowatt hours, that the developer intends to deliver each month. Tr. at 315. A QF will be allowed to revise its monthly net energy amounts 6 months after the initial operation date, 12 months after the operation date, and every 2 years thereafter. Tr. at 315-316. At any time, the net energy commitment amount can be temporarily reduced for force majeure or force outage events. Tr. at 316.

Idaho Power proposes a performance band to firm up QF power and make it more predictable and reliable. Monthly QF deliveries of energy in excess of 110% of scheduled "net energy" (up to 10,000 kWh/hour) will receive only 85% of the market price, or the contract rate, whichever is less. The market price is the monthly weighted average of the daily on-peak and off-peak Dow Jones Mid-Columbia Index (Dow Jones Mid-C Index) prices for non-firm energy. Tr. at 225. The excess energy rate is the same rate the Commission has approved for tariff Schedule 86 non-firm energy purchases. Tr. at 317. If the QF provides more than 110% Idaho

Power might have to sell the energy in the surplus market or back down a more economic production plant. Tr. at 316.

If the QF delivers less than 90% of the scheduled "net energy" amount (for reasons other than forced outage or force majeure events) the proposed FESA provides for liquidated damages to compensate the utility and its customers for having to acquire energy to make up the shortfall. Tr. at 317. A shortfall penalty for deliveries below 90% of scheduled "net energy" for energy not delivered equates to 85% of the market price, less the contract rate. Tr. at 25, 167, 168, 259. If 85% of the monthly weighted average of the actual Mid-C prices is less than the monthly contract price, the QF pays nothing. Tr. at 319. If greater than the monthly contract price, the QF pays the difference. Idaho Power has offered to limit QF shortfall exposure by capping liquidated damages at 150% of the contract price. Letters dated May 21, 2004 (Exhibits 201; 202); Tr. at 319.

Idaho Power contends that by providing economic incentives for QF developers to more accurately estimate the amounts of firm energy they will deliver each month, the Company is hoping to encourage developers to deliver firm energy rather than non-firm energy. Tr. at 311, 317. Obtaining better estimates of the monthly amounts of firm energy to be provided, Idaho Power contends, will increase the Company's ability to predict when QF generation will be available and will improve the Company's ability to integrate QF resources into its resource planning and acquisition processes as firm resources. Tr. at 311, 337.

PURPA, Idaho Power contends, provides that avoided costs are based on the cost the utility can avoid by purchasing from the QF rather than building a resource itself or purchasing additional resources on the wholesale market. Reference 16 U.S.C. § 824a3(d); Tr. at 334. By including the firming provisions in the QF contracts, the Company states that it is attempting to more closely align the firmness of energy purchases under the QF contracts with firm energy purchases it makes everyday in the wholesale market. Tr. at 334-336.

The Company contends that it is seeking to improve the firmness or predictability of QF energy deliveries because conditions have materially changed. Tr. at 312. The changed conditions include:

1. Wholesale markets have standardized the terms and conditions of wholesale firm energy transactions. As a result, wholesale firm energy purchases from creditworthy counterparties are now generally accepted

- as a prudent and cost-effective way of meeting a portion of a utility's resource needs. Tr. at 313.
- 2. Idaho Power has changed from an energy-constrained company to a capacity-constrained company. Seasonal peaks require the Company to have a high degree of confidence that energy purchases will be delivered in the amounts and at the times specified to match seasonal peak energy demands. Tr. at 313.
- 3. Transmission constraints require that Idaho Power more precisely anticipate its needs for firm energy imports. Tr. at 313.
- 4. The growing prominence of intermittent generating technologies, such as wind and solar, require a new approach in the Company's PURPA contracting procedures. Tr. at 313.
- 5. The Company's increased use of firm market purchases as hedges to manage risk escalates the importance of predictable resource availability. Tr. at 313.

Dr. Reading, witness for the wind QFs, contends that under PURPA, QFs are entitled to be paid full avoided cost rates for all of their production and that requiring them to pay a shortfall energy payment for power not produced is a concept not provided for in PURPA. Tr. at 260. Liquidated damages, Reading contends, is designed for parties to a contract to define damages in advance of the breach, so that if a breach occurs there is no dispute over either the level of damages or the methodology used to measure those damages. Tr. at 264. Idaho Power contends that its proposal to use the average Mid-C pricing is not a penalty but is a reasonable way of computing liquidated damages. Tr. at 322. The Company contends that Reading is incorrect when he states that Idaho Power can readily calculate whether and how much it was damaged by the QF developer's failure to supply an agreed upon amount of energy. First, the Company points out that the energy shortfall is based on a monthly total. During any month, the Company engages in numerous wholesale purchases/sales. Tr. at 322. Engaging in economic dispatch, the Company runs different generating resources at different times, etc. Tr. at 322-323. To demonstrate the reasonableness of liquidated damages, Idaho Power questions whether it would be fair to allow the Company to choose which transactions in a month it would attribute to the QFs failure to perform. Tr. at 323. At the same time, it contends that it is unfair to assume that the QFs failure to deliver has no cost impact on the Company's power supply expense. Tr. at 323.

Staff agrees conceptually with the use of a performance band. Tr. at 591. Staff recommends that the band be widened to 80/120. Tr. at 578. Staff notes that it is possible that if generation falls short enough (90/110), that the project will owe money to the utility if it fails to produce. Exh. 102; Tr. at 591. Staff notes that in the last 19 months Idaho Power's PURPA QFs have delivered an average of 71% of their contracted energy. Staff notes that none of the projects have ever been held to their contract estimate amounts nor have any ever revised their original contract amounts based on the amounts the project has proven able to deliver. With incentives to deliver at least 80% of their monthly generation estimates, and periodic opportunities to revise the estimates, Staff believes that 80% is achievable by most QF projects. Tr. at 597.

Regarding Staff's proposal to expand the performance band to 80/120, Idaho Power contends that increasing the upper and lower bounds reduces the firmness and weakens the Company's ability to plan for a specific amount of energy from the QF each month. Tr. at 363. Bandwidth only provides a financial incentive for the QF to set the estimated monthly generation levels at reasonable, attainable levels for that specific facility and then perform accordingly, the Company contends. Tr. at 365.

Staff contends that it is necessary to place a cap on the potential exposure QF developers would face in the event their project is unable to meet the lower band and agrees with the 150% cap proposed by Idaho Power. Tr. at 599. U.S. Geothermal contends that the proposed cap on liquidated damages may still result in a one or two month shortfall wiping out an entire year of profits or possibly even throwing a QF into bankruptcy.

The selection of a 90/110 band, U.S. Geothermal contends, appears arbitrary and without a technical basis for justification. Tr. at 98. U.S. Geothermal contends that "the lesser of" provision is unfair and is inconsistent with the Commission pricing criteria for non-firm energy (85% of Mid-C market prices). Tr. at 226-227. The cost (and value) of firming the delivery of power from the SAR, U.S. Geothermal contends, is not included in the published rates. Tr. at 108, 169. Idaho Power, it states, has selected a "seasonal" approach to power pricing, yet the penalties are monthly. If firmness is desired, U.S. Geothermal contends that it would be far more reasonable to use "seasonal" firming, rather than monthly firming. Tr. at 100.

The only reason allowed, contractually, for failure to deliver, U.S. Geothermal contends, would be "force majeure." The band, it contends, makes no allowance for the normal

breakdown of equipment. Tr. at 98. So the routine failure of one of the downhole production pumps, warmer than normal weather, or a shut down for scheduled maintenance one week early would all result in the imposition of penalties. Tr. at 100. U.S. Geothermal further contends that there is no opportunity to "make up" for power that is not delivered on either a monthly, or more reasonably, seasonal basis, as is common in other firming contracts. Tr. at 100; 108.

U.S. Geothermal witness Runyan contends Idaho Power would have the Commission believe that the 90/110 performance band is necessary to limit CSPP producers' discretion over the operation of their facilities. But the fact is, Runyan contends, that Idaho QF projects receive payment only for energy delivered – the ultimate incentive for reliable and continuous production. Tr. at 206; 265. Runyan and Dr. Reading see no justification for performance penalties. Tr. at 208, 264.

U.S. Geothermal witness Runyan proposes that the Agreement contain the standard terms and conditions used for PURPA QF projects in Idaho over the last decade. Under such contracts a QF is paid only for energy actually delivered, without any compensation for capacity. Tr. at 168. QFs, Runyan contends, should not be held to a performance standard that has not been required of the SAR. Tr. at 173. In the case of more than 60 PURPA QFs now providing energy to Idaho Power, even though each individual facility may not be considered "firm," the group as a whole, Runyan contends, in fact delivered the benefit of a firm resource to Idaho Power and its customers. Tr. at 176. Regarding reliability/predictable performance, Runyan contends that CSPP facilities have operated as well and arguably better than utility resources. Tr. at 205. In reviewing only CSPP thermal projects, Runyan concludes that the deviation over a seven-year (1997-2003) period was from 93% to 106% of the seven-year average. Tr. at 204. Idaho Power, he states, is trying to force attributes associated with system and tailored sales into a contract that is intended to represent an avoided utility rate-based project. Tr. at 176.

U.S. Geothermal's QF contract proposal provides that any deliveries in excess of 12.7 MW in any hour is a material breach under the agreement. Tr. at 566. The contract also provides for maximum energy amounts – no obligation to purchase in excess of that number. Tr. at 542; 567. The contract further provides a net energy amount – what U.S. Geothermal intends to deliver on a monthly basis. Tr. at 567. Finally, the contract also provides for a maximum monthly capacity amount. Tr. at 568.

Simply put, the wind QFs, Reading states, are arguing for the status quo. Tr. at 289. Wind, he contends, is a legitimate QF resource that deserves to be treated the same as all other legitimate resources. Tr. at 276.

Regarding Idaho Power's contention that a 90/110 band is necessary "to better integrate QF resources into the Company's resource planning and acquisition process as firm resources," Reading contends that Idaho Power's IRP simply lumps all QFs together in planning for future years and considers the aggregate as a single resource, not individually modeled for resource planning. Tr. at 281.

Regarding surplus or excess energy, Reading contends that obviously Idaho Power is over-reaching here with a "heads they win and a tails the QF loses" pricing scheme. Assuming the QF has not increased the size above the 10 MW threshold for entitlement to published rates, Reading contends that the Company should be required to pay the contract price for all energy produced and delivered by a QF. Tr. at 271-272.

PacifiCorp witness Hale agrees that conditioning firm energy pricing on monthly delivery commitments is a reasonable requirement. Tr. at 496. A utility, he states, should not be required to pay for any energy delivered in excess of 10 MW in any hour. Tr. at 505. Hale notes that power has different value depending upon the timing and extent to which the purchaser has notice or control over delivery. Tr. at 506. Hale agrees with Idaho Power that QFs should be required to commit to monthly (as opposed to daily or hourly) delivery schedules in order to obtain firm energy prices. Tr. at 510-511.

Avista supports Idaho Power's proposed metered energy test. Tr. at 541-542. Any energy delivered above the lesser of (1) the 10 MW threshold or (2) any stated contract hourly amount, Avista witness Kalich contends, should be purchased at a percentage of market based rates reflecting the purchasing utility's short-term avoided cost. Tr. at 542. Kalich recommends that the market rate be equal to 85% of the Mid-C daily index and be capped at the published avoided cost rate. Tr. at 542. Kalich contends that QFs must provide both capacity and energy to receive the published avoided cost rate. Tr. at 544. The 90/110 bandwidth, he states, only requires that resources meet a monthly energy quantity. Capacity, on the other hand, he notes, is an instantaneous or near-instantaneous product. Wind and other non-firm resources, Kalich contends, should not be eligible to receive the full, published avoided cost rate because of the

absence of firm capacity from these resources. Tr. at 545. To address this problem, Kalich suggests a capacity discount is a good solution.

### **Commission Findings**

As reflected in our 10 MW cap discussion, the Commission finds that a legally enforceable obligation translates into contractual obligations of both parties. For a QF it translates into an obligation or commitment to deliver its monthly estimated production. Idaho Power proposes that this delivery of committed energy fall within a 90/110 band. Staff proposes that the band be expanded to 80/120. We find 90/110 to be reasonable. The Commission recognizes that excess energy is not accepted by the Company without consequence. If unplanned for and not easily integrated the energy may as suggested by the Company have to be sold in the surplus market or other more economic resources of the Company backed down.

The Commission finds that energy delivered in excess of 110% should be priced at 85% of the market or the contract price, whichever is less. As reflected in our discussion of 10 MW we find it reasonable to cap the maximum monthly generation that qualifies for published rates at the total number of hours in the month multiplied by 10 MW. This is also a cap for excess energy payments. By way of example, a QF that commits to deliver a monthly total of 7,000 kWh in January and delivers greater than 90% of the commitment amount that month will receive the posted rate for all energy up to 110% of the 7,000 kWh commitment amount and 85% of the Mid-C market price for energy exceeding 110% up to the 10 MW cap. The QF will receive no payment for any energy provided above the 10 MW cap.

Idaho Power proposes that if the QF delivers less than 90% of the scheduled "net energy" amount (for reasons other than forced outage or forced majeure events) that the shortfall energy be priced at 85% of the market price, less the contract rate, the difference capped at 150% of contract rate. The Commission believes that such a shortfall energy pricing method might have the potential of exacting too heavy a price. We instead find it reasonable when the QF fails to deliver 90% of the monthly commitment amount to price all delivered energy at 85% of the market price, or the contract rate, whichever is less.

#### Forced Outage

Idaho Power's contract proposal provides QFs with a "grace period" when the QF notifies the Company that it is suspending deliveries because a forced outage has occurred. Forced outages include generating equipment breakdowns, geothermal well breakdowns, Idaho

Power line maintenance outages, etc. The contract delivery obligation is adjusted to recognize the impact of the forced outage. The generation suspension due to the forced outage must last at least 72 hours. Idaho Power contends that the 72-hour time period is the minimum length of "grace period," not the maximum. Tr. at 362. The 72-hour provision, the Company contends, was included to discourage abuse of the forced outage suspension provision. Without a minimum outage period, Idaho Power contends that a QF would be incented to declare a forced outage every time some minor "hiccup" occurred. The intent is not to preclude adjustments for legitimate forced outages but to discourage unreasonable numbers of declarations of forced outage that could result in a burdensome amount of accounting and contract administration activities. Tr. at 362. The Company concedes that a shorter period would also be workable. Tr. at 363.

U.S. Geothermal questions why "all" deliveries must be suspended if a unit is capable of operating at some reduced level. U.S. Geothermal posits that if Raft River has two 5 MW generators and one of them goes down for a day, the contract requires a shutdown of all 10 MW for 72 hours to avoid contract penalties. If the equipment can be repaired in 24 hours, what public good, it queries, is served by the requirement to suspend deliveries a minimum of 72 hours? Tr. at 112-113; 211.

#### **Commission Findings**

The Commission finds that a minimum outage requirement is reasonable only as to individual generation units incurring a forced outage event. Unaffected generation units need not be interrupted. The Company proposes a 72-hour minimum outage requirement but concedes that a shorter time might also be workable. We find 48 hours to be reasonable.

## Revising Generation Estimates

Idaho Power proposes to allow QFs to revise their energy estimates three times during the first year of operation and every two years thereafter. Tr. at 315-316. Staff contends that QF project owners should be given more frequent opportunities to revise their monthly generation estimates. Staff recommends a six-month interval for the duration of the contract. Tr. at 597.

After the first year the Company believes the two-year period is preferable to the shorter six-month period. Idaho Power contends that a two-year interval allows the Company to more easily integrate the QF resource into its biennial IRP planning process. Tr. at 365-367. It is

also important to note, the Company contends, that the estimated generation requirement is only for total monthly kilowatt hours; it is not measured hourly, daily or weekly. Tr. at 367. Inaccurate prediction may occur, the Company concedes, but still when the delivery does not match the schedule, the product deteriorates. Tr. at 416. For a project with greater risk of generation deviations, Idaho Power suggests that it may be prudent not to estimate generation at the maximum output but instead to estimate generation at a lower level to allow a "cushion" for potential times of reduced generation. Tr. at 369.

While favoring a two-year interval, the Company notes that even the more frequent Staff proposed six-month adjustment would be an improvement over existing practice. If the Commission is inclined to require a more frequent adjustment interval, the Company proposes a one-year interval rather than six months.

U.S. Geothermal notes that a PURPA plant is required under Idaho Power's contract to forecast its monthly generation up to two years in advance, and if it fails to deliver its estimated power, then it is penalized. U.S. Geothermal witness Kitz states that Idaho Power's requirement that its generation forecast be set up as much as two years in advance makes no allowance for weather circumstances beyond the control of the operator. Tr. at 97-98. Anyone familiar with the weather in the Northwest, U.S. Geothermal witness Runyan contends, knows that forecasting weather and streamflows two years in advance is a recipe for disaster. Even a six-month forecast, he contends, is too long. Who in their right mind, he queries, would place any credence in a November forecast of May streamflows. Tr. at 210. If the Commission deems such forecast necessary, U.S. Geothermal contends, a one to two month ahead forecast will result in a much more accurate information, while minimizing the punitive nature of any penalties that Idaho Power may be allowed to impose. Tr. at 100-101; 210.

If the Commission adopts the performance band concept, allowing updates every six months, the wind QFs' witness Reading contends, is reasonable and should be adopted. Tr. at 288. Reading contends that the risk of not being paid is incentive enough, however, to ensure the highest capacity factor possible from QFs. Tr. at 288.

#### **Commission Findings**

The Commission finds that it is reasonable and operationally expedient to require QFs to provide Idaho Power with monthly kWh production estimates. The estimate amount is the QF's generation delivery commitment. It is the monthly production estimate that will be

used in the 90/110 performance band. The Commission finds it reasonable to provide more frequent opportunities to revise generation estimates than proposed by the Company. We find that the interest of the Company in planning for QF resources is better served if the generation forecast is a reliable estimate. QFs shall initially provide Idaho Power with one year of monthly generation estimates and beginning at the end of month nine and every three months thereafter provide the Company with an additional three months of forward estimates. QF opportunities for estimate revisions begin at the end of month three and every three months thereafter for the forward period beginning the fourth month out through the end of the estimate period. For planning purposes, following the first year the Company on a rolling basis will always have six months of QF production estimates.

# 4. U.S. Geothermal - Request for Grandfathering

#### **Commission Findings**

The Commission's Order addresses the three contract provisions objected to by the QFs. Regarding U.S. Geothermal's request for grandfathering we find that the parties have never reached agreement or tendered a signed contract. As indicated in our approving Orders, the non-standard contract terms contained in Tiber Montana (Order No. 29232) and Renewable Energy (Order No. 29487) were non-precedential. This Commission will consider the reasonableness of any signed contract negotiated by and acceptable to the parties and their respective arguments as to the equity and fairness in approving same.

#### **CONCLUSIONS OF LAW**

The Idaho Public Utilities Commission has jurisdiction over Idaho Power Company, an electric utility, pursuant to the authority and power granted it under Title 61 of the Idaho Code and the Public Utility Regulatory Policies Act of 1978 (PURPA).

The Commission has authority under PURPA and the implementing regulations of the Federal Energy Regulatory Commission (FERC) to set avoided costs, to order electric utilities to enter into fixed term obligations for the purchase of energy from qualified facilities and to implement FERC rules.

#### ORDER

In consideration of the foregoing, IT IS HEREBY ORDERED and Idaho Power Company is directed to conform its QF contracting practice and Firm Energy Sales Agreement contract provision requirements to accord and comply with the Commission's findings as set forth above.

THIS IS A FINAL ORDER. Any person interested in this Order may petition for reconsideration within twenty-one (21) days of the service date of this Order. Within seven (7) days after any person has petitioned for reconsideration, any other person may cross-petition for reconsideration. See *Idaho Code* § 61-626.

DONE by Order of the Idaho Public Utilities Commission at Boise, Idaho this 22 nd day of November 2004.

PAUL KJELLANDER, PRESIDENT

See attached Separate Concurrence and Dissent of Commissioner Smith MARSHA H. SMITH, COMMISSIONER

DENNIS S. HANSEN, COMMISSIONER

ATTEST:

Jean D. Jewell ()
Commission Secretary

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# SEPARATE CONCURRENCE AND DISSENT OF COMMISSIONER MARSHA H. SMITH ORDER NO. 29632 CASE NOS. IPC-E-04-8 AND IPC-E-04-10

I concur in the finding that Idaho Power Company is not a volunteer with respect to signing a PURPA contract and therefore, a regulatory out provision is not necessary.

I find that U.S. Geothermal is eligible for the posted rates as a project designed and capable of generating at 10 aMW under normal conditions. Idaho Power is protected by U.S. Geothermal-proposed contractual provisions that provide a maximum monthly capacity amount and no obligation to purchase excess deliveries. This is nothing more than the status quo that has been available to all other legitimate resources.

I strongly oppose the 90%/110% performance band proposal of Idaho Power and also do not favor the 80%/120% proposal of the Staff. It is my belief that project developers that sign PURPA contracts have a legally enforceable obligation. The incentive for them is to provide all the power they can. They need to be paid to stay in operation and if they do not produce, they do not get paid. The banding proposal would operate as a penalty, not an incentive.

MARSHA H. SMITH, COMMISSIONER